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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,692	07/30/2001	Matthew Patrick Compton	450110-03374	2191

20999 7590 02/21/2006  
FROMMER LAWRENCE & HAUG  
745 FIFTH AVENUE- 10TH FL.  
NEW YORK, NY 10151

EXAMINER
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VILLECCO, JOHN M

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/918,692	<b>Applicant(s)</b> COMPTON, MATTHEW PATRICK	
	<b>Examiner</b> John M. Villecco	<b>Art Unit</b> 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 5-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 5-12 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 28, 2005 has been entered.

### ***Response to Arguments***

2. Regarding claims 1 and 9, applicant has amended the claim to recite a variation of the limitation of "each of said plurality of register elements being arranged to store a pixel of said received video signal, two or more of said plurality of register elements having an input connected to a first plurality of other register elements and an output connected to a second plurality of other register elements". This amendment appears to overcome the prior art used in the previous rejections. However, the amendment has resulted in some antecedent basis issues which will be discussed on the following pages.

3. However, after a closer review of claims 10 and 11, it appears that these claims do not meet the requirements for 35 U.S.C. 101. Please see the new grounds of rejection for claims 10 and 11 on the following pages.

***Claim Objections***

4. Claim 9 is objected to because of the following informalities:

- In line 7 of claim 9 applicant recites the phrase “said input pixels”. There is insufficient antecedent basis for this limitation in claim 9.

Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 10 and 11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. More specifically, in both claims 10 and 11 applicant claims “a computer program providing computer executable instructions”. As discussed in MPEP § 2106, data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. Similarly, computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical “things.” They are neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program’s functionality to be realized. For the above reasons, claims 10 and 11 are deemed non-statutory.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1, 3, 5-9 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 1 recites the limitation "to one of said plurality of other register elements to which said register element is connected" in lines 19-20. There is insufficient antecedent basis for this limitation in the claim. More specifically, applicant recites "a first plurality of other register elements" in line 14 and "a second plurality of other register elements" in lines 15-16. Thus, it is unclear which "other register elements" are being discussed in lines 19-20.

9. Claims 3 and 5-8 are rejected based on their dependency to claim 1.

10. Claim 9 recites the limitation "to one of said plurality of other register elements connected" in lines 20-21. There is insufficient antecedent basis for this limitation in the claim. More specifically, applicant recites "a first plurality of other register elements" in line 12 and "a second plurality of other register elements" in lines 13. Thus, it is unclear which "other register elements" are being discussed in lines 19-20.

11. Claim 12 is rejected based upon its dependency to claim 1.

***Allowable Subject Matter***

12. Claims 1, 3, 5-9, and 12 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

13. The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the primary reason for allowance is that the prior art fails to teach or reasonably suggest a register store receiving video signals and to provide pixels to an interpolator, wherein each of the register elements are arranged to store a pixel of the received video signal, two or more of the register elements having an input connected to a plurality of other register elements, an output connected to a plurality of other register elements, and wherein each of the register elements is configurable under to the control of a control processor to feed the pixel stored in the register elements to one of the plurality of other register elements, wherein the control processor is operable to detect a feature of the image having both vertical and horizontal components, to control the configuration of the register elements to provide the input pixels associated with the feature to the interpolator to interpolate the feature.

As for claim 9, the primary reason for allowance is that the prior art fails to teach or reasonably suggest identifying a feature in an image having a component in both horizontal and vertical dimensions....storing the pixels in a register store having a plurality of register elements, each of the register elements being arranged to store a pixel of the received video signal, two or more of the register elements having an input connected to a plurality of other register elements, an output connected to a plurality of other register elements, generating an output video signal by selectively interpolating the input signals associated with the feature in accordance with the horizontal and vertical directions to generate the interpolated video signal, updating the register store in accordance with a temporal reference.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Villecco whose telephone number is (571) 272-7319.

The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John M. Villecco  
February 8, 2006